
CHAPTER 4

Domestic Operations

MARAD actively promotes and develops the domestic merchant marine in support of the Department of Transportation's (DOT) strategic goal of "advancing America's economic growth and domestic and international competitiveness through efficient and flexible transportation."

The domestic shipping operations of the American merchant marine provide essential services to 41 States reaching 90 percent of the national population. During calendar year 2000, this environmentally friendly form of surface transportation handled a total of over 1.1 billion¹ short tons of cargo, which is about 23 percent² of the ton-miles of all domestic surface transportation traffic. Domestic waterborne transportation contributes \$7.7 billion³ to the gross domestic product annually in the form of freight revenue.

In FY 2001, MARAD supported the national strategic goals by actively participating in the Marine Transportation System (MTS) initiative, as well as other specific actions as outlined below.

MARINE TRANSPORTATION SYSTEM INITIATIVE

MARAD and 17 other Federal agencies are cooperating with industry to improve the marine portion of the national transportation system. The MTS initiative is a program to ensure a safe, secure, and environmentally sound world-class marine transportation system that improves the global competitiveness and national security of the United States.

An Assessment of the U.S. Marine Transportation System

As the world's leading maritime and trading nation, the United States relies on an efficient and effective MTS to maintain its role as a global power. The MTS provides American businesses with competitive access to suppliers and markets in an increasingly global economy. The MTS transports people to work; provides them with recreation and vacation opportunities; puts food on their tables; and delivers many of the items they need in their professional and personal lives. Within the United States, the MTS provides a cost-effective means for moving

major bulk commodities, such as grain, coal, and petroleum. It is a key element of State and local government economic development and job-creation efforts and the source of profits for private companies. With its vast resources and access, the MTS is an essential element in maintaining economic competitiveness and national security.

The MTS provides economic value by affording efficient, effective, and dependable all-weather transportation for the movement of people and goods. Waterborne cargo alone contributes more than \$742 billion to U.S. gross domestic product and creates employment for more than 13 million citizens.

The terrorist events of September 11, 2001, demonstrated the need for the highest level of attention to safety and security in our Nation's transportation system. DOT is committed to safeguarding the Nation's waterways, ports, vessels, related individuals, and property. The MTS must preserve and enhance the ability of waterfront facilities and other public or commercial structures located within or adjacent to the marine environment to support national security programs. It must keep cargo and passenger traffic moving safely and efficiently, ensuring that America's marine transportation system is ready for the increased demands of the 21st century.

The MTS provides national security value by supporting the swift mobilization and sustainment of America's military. As an example, 90 percent of all equipment and supplies for Desert Storm were shipped from U.S. strategic ports using our inland and coastal waterways.

Implementation of MTS Recommendation

The report *An Assessment of the U.S. Marine Transportation System* was the culmination of two years of unprecedented dialogue between the public and private sector to address issues in the MTS. Three key recommendations of the report have been implemented.

In FY 2000, the Marine Transportation System National Advisory Council (MTSNAC) was established by the Secretary of Transportation with MARAD as the designated sponsor. The MTSNAC consists of 30 representatives from non-Federal organizations. The primary purpose of the MTSNAC is to provide a coordinated approach for the non-Federal stakeholders to contribute to national issues and to advise the Secretary of Transportation on the needs of the MTS. During Calendar Year 2001, MARAD managed the sponsor's responsibility to the MTSNAC, including three National Council meetings, Council requests such as the development and enhancement of the MTSNAC web site, and the preparation and submission of industry views on MTS issues, as discussed below. The

¹ U.S. Army Corps of Engineers, Waterborne Commerce Statistics Center, 2000

² Transportation in America, Eno Transportation Foundation, 1998, pp. 11

³ Transportation in America, Eno Transportation Foundation, 1998, pp. 40

MTSNAC has six active Council teams: Awareness; Infrastructure; Safety and Environment; Information Technology and Research and Development; Human Resources; and Security.

The Secretary of Transportation, Norman Y. Mineta, addressed the MTSNAC at two meetings in 2001. At Kings Point, NY, he challenged the group to develop an outline of a SEA-21 Program for marine transportation, similar to TEA-21 for the highways. Later in the year in Baltimore, MD, the Secretary asked the Council to advise him on the security needs of the MTS following the terrorist attacks of September 11, 2001.

The MTSNAC chair, vice-chair, and the six subcommittee chairs met to develop a draft list of elements that are required to address nationally significant marine transportation system needs. This draft will be presented to the MTSNAC members for their review and recommendation to the Secretary in early 2002.

The MTSNAC Security Subcommittee drafted a report on marine security that was presented to the full Council for approval. The report was accepted by the Council and is being forwarded to the Secretary for his review.

The MTSNAC also presented a White Paper on the marine transportation system, *Challenges and Opportunities for the U.S. Marine Transportation System*, to the Secretary of Transportation. This white paper focused on the components of the MTS and the issues that must be addressed to ensure that it can meet the demands of the 21st century.

An Interagency Committee for the MTS (ICMTS) has been established. This Committee serves as the national coordinating body for all Federal agencies responsible for one or more aspects of the MTS to discuss strategies and ideas to improve our transportation system. To date, 18 Federal agencies have signed a Memorandum of Understanding with the ICMTS. The ICMTS established six subcommittees to address the various MTS issues. They are security, safety and environmental protection, strategic planning, resources, research and development and technology application, and ferryboats.

DOMESTIC SHIPPING

Significant Activities

- ◆ **Winter Fuel Meeting.** MARAD organized a Winter Fuel Meeting during FY 2001 to review the outlook for supply and demand for winter heating oil and spring gasoline. Approximately 60 tanker owners and brokers, and representatives of maritime labor, the American Petroleum Institute, Department of Energy (DOE), U.S. Coast Guard, and Customs attended. Attendees were briefed on available capacity in the U.S.-flag tanker market. U.S.-flag tanker interests heard first hand DOE's assessment and policy position.

- ◆ **Winter Energy Symposium.** During FY 2001, MARAD participated in a public Winter Energy Symposium sponsored by the Rhode Island congressional delegation in Cranston, RI. The Acting Maritime Administrator briefed the public on the role of MARAD in providing assistance to energy shippers during times of national and regional emergency.
- ◆ **Container on Barge Study.** In FY 2000, MARAD initiated a cooperative agreement with the Port of Pittsburgh Commission to study the marketability of a container on barge service between the Port of Pittsburgh, PA, and Monterrey, Mexico, via Brownsville, TX. It is envisioned that this study will be completed in October 2003 and will identify a potential base of shippers in the Pittsburgh and Monterrey areas, as well as shippers on the waterway corridor between these two cities. Cargo will be off-loaded at Brownsville, TX, and trucked to Monterrey, Mexico.
- ◆ **Prototype Mooring Buoy II.** MARAD, the River Industry Action Committee, and the Army Corps of Engineers (CORPS) completed a full year of tests on the Prototype Mooring Buoy located below Lock and Dam 25. The prototype-mooring buoy was jointly funded by MARAD and the Corps of Engineers, and is designed to provide a safe and environmentally friendly holding area for inland tows above and below locks. This is the second prototype mooring buoy and the revised design has proved to be stable and safe for towboat crews to access from both loaded and empty barges. The prototype mooring buoy will be relocated in spring of 2002 to an area selected by towboat captains. This will allow tows to moor close to a lock approach and away from environmentally sensitive areas.

Technical Assistance

In addition to the MTS initiative, MARAD provided other technical and promotional assistance to the domestic shipping industry throughout FY 2001.

One far-reaching effort is market research to examine the development of a coastwise shipping system for the advancement of waterborne trade along our coasts to relieve congested highways. The second phase of the multi-phase study, *High Speed Ferries and Coastwise Vessels: Evaluation of Parameters and Markets for Application*, was completed in June of 2000. It provided a framework for future research to improve coastwise trade.

During FY 2001, the results of Phase II were presented in a public forum attended by more than 45 public and private stakeholders. Work on Phase III is underway, with active participation by domestic carriers, ports, shipbuilders, and a number of federal agencies, including the DOT's Federal Highway Administration and Bureau of Transportation Statistics. The goal is to demonstrate the feasibility and benefits of a robust coastal liner shipping system along the Nation's East, West, and Gulf coasts for inter-city general cargo.

Rural Transportation Initiative

MARAD continues to participate as an active team member with other DOT agencies in the Rural Transportation Initiative. The primary objective is to continue helping to ensure rural areas and small communities share in the mobility as well as the economic and social benefits that DOT programs provide. MARAD is offering the results of its Container On Barge Study and is initiating a new project to study landside access to inland ports and to assess the availability of intermodal access at inland waterways ports and terminals.

Jones Act

The Jones Act embodies America's coastwise cabotage laws and other related acts. It requires that maritime cargoes and passengers moving between U.S. ports be transported in vessels built and maintained in the United States, and owned by American citizens.

MARAD provides assistance to shippers in need of qualified U.S.-flag vessels. Throughout the year, shippers call the Agency when there is a question concerning the applicability of the Jones Act, or if they need assistance locating a qualified vessel to meet their transportation needs. The Agency responds to questions and provides possible shipping sources to help resolve their domestic transportation problems. MARAD is required to respond within 48 hours to formal Jones Act waiver requests.

MARAD's staff, along with the U.S. Coast Guard's (USCG) Office of Response, developed procedures for cooperative efforts to locate suitable U.S.-flag tonnage in emergency situations. MARAD provided language to the USCG regarding the use of U.S.-flag vessels for inclusion in field staff emergency response checklists and a list of 24-hour MARAD domestic shipping contacts.

Assistance for Shippers

MARAD provides a direct shipper assistance program for the mutual benefit of the shippers and carriers of the oceangoing coastwise trade. Specifically, MARAD maintains a listing of coastwise-qualified vessels and provides advice to industry on how to best ship commodities in compliance with the Jones Act and other coastal shipping laws. MARAD receives approximately 250 requests for assistance per year, resulting in millions of dollars of cargo for the U.S.-flag fleet.

Small Passenger Vessel Waiver Authority

Public Law 105-383 gave the MARAD authority to establish a process to waive administratively the U.S.-build requirements of the Jones Act for certain small passenger vessels. Specifically, Title V authorizes the Secretary of Transportation to waive the domestic build requirements for foreign-built or rebuilt small passenger vessels authorized to carry no more than 12 passengers.

In order to grant such waivers, the Secretary must determine that employment of the vessel in the coastwise trade will not adversely

affect U.S. vessel builders or the coastwise trade business of any person who employs vessels built in the United States. During FY 2001, MARAD received 85 applications and granted 65 waivers. In addition, one request was denied and three were returned to applicants who did not qualify for the program.

INDUSTRY TRENDS AND PROFILE

The three major sectors of U.S. domestic shipping are the inland waterways, the domestic deep-sea trades, and the Great Lakes. The major products moving in the domestic trade are crude petroleum, raw materials, coal, chemicals, and farm products. Traditional liner cargoes and manufactured products move between the contiguous 48 states and Alaska, Hawaii, and Puerto Rico.

Inland Waterways

Inland waterways are a vital part of the Nation's transportation infrastructure. They enhance international and domestic trade by minimizing shipping costs for bulk commodities and general cargo.

Comprised of approximately 12,000 miles of commercially navigable channels, our inland waterways handle 60 percent of our Nation's grain exports, 25 percent of our chemical and petroleum exports, and over 20 percent of our domestic coal shipments. Approximately 82 percent of the corn, 77 percent of the soybeans, and 32 percent of the wheat grown in the United States are produced in the 10 Midwestern states that rely greatly on inland waterway barge transportation.

One-third of the plants that manufacture chemicals and related products are located in areas with easy access to barge transportation. Coal-fired power plants that are served by barges generate approximately 75 percent of the Nation's total electric power.

In 2000, the most recent year for which statistics are available, approximately 691 million metric tons of cargo consisting of imports, exports, and intraport shipments were moved on the inland waterways. The principal commodities were coal (26 percent), petroleum (24 percent), crude materials (20 percent), food and farm products (14 percent), chemicals (8 percent), and manufactured goods (5 percent).

As of January 2001, the inland waterway cargo-carrying fleet included 3,112 tank barges with a total capacity of 7.3 million metric tons. Of the current fleet, 75 percent are double-hulled, up from 70 percent in July. The Oil Pollution Act of 1990 prohibits the single-hull segment of the fleet from operating in U.S. navigable waters after 2015. There were also 22,425 dry bulk barges (34 million metric tons capacity) and 2,827 other dry cargo barges (3.7 million metric tons capacity). The dry bulk barge total was in increase of almost three percent in number and capacity over the January-July 2000 fleet. A fleet of 5,392 towboats and tugboats supported the barge fleet during this six-month period. (See Figures 18 and 19.)

Upper Mississippi River/ Illinois Waterway Navigation Study

The CORPS restarted the Upper Mississippi River/Illinois Waterway Navigation Study in 2001 following an investigation and review of the Corps' study methods by the National Research Council of the National Academy of Sciences. The purpose of the study is to investigate congestion at locks on the Upper Mississippi and Illinois Waterway. The CORPS has adopted a collaborative approach to the completion of the Study and has asked the Department of Agriculture, Environmental Protection Agency, and MARAD to assist them. MARAD participates on three of the Corps' study committees: The Principals Committee, The Regional Interagency Work Team, and the Study Team Review Committee. The Corps plans to publish an interim report in July 2002.

Ferry Services

Section 1207(c) of the Transportation Equity Act for the 21st Century mandated DOT to conduct a study on existing ferry services in the United States. The study includes such items as regulatory, financial, and market-related issues facing existing and potential ferry services. The data collection has been completed and distributed on CD-ROM throughout the ferry industry.

MARAD continues to lead a DOT-wide working group, which consists of representatives from MARAD, USCG, Federal Highway Administration (FHWA), and Federal Transit Authority (FTA) that addresses ferry-related issues. This group is also teaming with the Passenger Vessel Association to host a conference in Biloxi, MS, in February 2002. This conference will be unique in that for the first time Metropolitan Planning Organizations (MPOs) will be invited to attend a conference. This will give ferryboat operators a chance to interact with the MPOs, which create and set policy in local communities.

On September 11, 2001, ferryboats again proved their value in times of natural disasters and national emergencies. Following the devastating attack on the World Trade Center Towers, the ferryboat operators in New York teamed together to evacuate over 100,000 people from lower Manhattan when all other forms of public transportation were incapacitated by the devastation.

Missouri River Master Control Revision

The CORPS has continued its efforts in 2001 to revise the Missouri River Master Water Control Manual. This is the Manual that the Corps utilizes to manage the release of water from the seven main stem reservoirs on the headwaters of the Missouri River for navigation, flood control, and water supply. The Corps' initial effort to revise the Manual was rejected by all those with an interest in the Missouri River in 1995. The Corps released the revised Draft Environmental Assessment in 2000, and held 14 public meetings in 2001 to solicit public opinion concerning the six alternatives contained in this document. MARAD participated in the public meetings, and has acted as an advocate for the inland navigation industry.

Deep-Sea Trades

The major segments of the domestic deep-sea trade are the *contiguous* and *noncontiguous* trades. The major *noncontiguous* trades are between the mainland and Alaska, Hawaii, Puerto Rico, Guam, and the islands of Wake and Midway. The *contiguous* routes consist of the coastwise trade traffic along the Atlantic, Gulf, and Pacific Coasts.

Of the more than 226 million short tons moved in domestic deep-sea trade in 2000, petroleum products accounted for 50 percent, crude petroleum for 21 percent, chemicals for 6 percent, and coal for 6 percent. Manufactured products that move primarily in noncontiguous trades and food products accounted for the remainder.

As of July 1, 2000, the fleets serving U.S. domestic ocean trades included 90 dry cargo vessels (0.75 million capacity tons), 102 tankers (6 million cap. tons), and over 2,300 barges (6.9 million cap. tons). Self-propelled vessels are generally preferred in long-haul, time-sensitive trades because they are faster than tug/barge units (15-20 knots versus 8-12 knots) and are not as likely as barges to get weatherbound.

Offshore Oil Support

The trend of oil exploration and production moving further from shore into deeper waters continues, requiring larger support vessels. The growth in deepwater activity remains based on Royalty Relief Act benefits and continued high oil prices. The Royalty Relief Act offers a suspension of royalty for a volume, or period of production, for exploration and drilling in water depths exceeding 200 meters or more.

During the past year, plans were being formed for Floating Production Storage and Offload (FPSO) ships to be stationed in the U.S. Gulf. The Minerals Management Service of the Department of Interior was producing an Environmental Impact Statement, which is expected to rank shuttle tankers as equivalent environmentally to pipelines. Several shipowners are discussing options for shuttle tankers, including articulated tug-barge combinations.

The count of offshore supply vessels in the U.S. Gulf as of September 30, 2001, was 354.

Great Lakes

Domestic Carriers

The U.S.-flag cargo carriers registered a total of more than 13 million net tons in 2000, a decrease of 2.1% from the previous sailing season. The Lake Carriers' Association, representing most of the domestic Great Lakes carriers, cites the declining water levels, soaring steel imports, and a mild winter reducing the need for coal for electricity generation. The total cargo moved in domestic Great Lakes trade during calendar year 2000 was 126 million metric tons.

Vessels of 1,000 gross tons and larger in the U.S.-flag Great Lakes fleet as of January 1, 2001, totaled 100. (See Figure 18.)

The fleet was made up of 52 self-propelled vessels, totaling 1.8 million capacity tons, and 48 non-self-propelled vessels, including 10 integrated barge units, totaling 0.4 million capacity tons.

Iron ore, coal, and limestone continue as the principal bulk materials hauled by the U.S. Great Lakes fleet during the ten-month season. Filling out the majority of the remainder of Lakes' traffic is cement, salt, sand, grain, and liquid-bulk commodities. Most of this movement is labeled Jones Act trade, since it moves primarily from one U.S. port to another.

Since near record high water levels in 1997, the Great Lakes have experienced a drop in levels of approximately 3 feet. The CORPS is maintaining most navigation channels at authorized elevation levels. These levels still cause ship operators to adjust their cargo loadings, resulting in a 1,000-foot laker vessel losing 267 tons of cargo per every inch of lower channel draft. This equates to a several thousand ton drop in cargo-carrying ability per vessel transit from the recent past.

Of concern to a primary industry of the Great Lakes region is the heavy importation of steel. Twenty-seven U.S. steel companies have applied for bankruptcy protection since 1998, contending that illegal subsidies have allowed inexpensive steel from overseas to flood our markets. Iron ore, coal, and limestone are principal components of steel, and also the prime cargoes of the U.S. domestic carriers in the Lakes. There is an escalating call in the region for Government action to curtail the imports.

Current Developments

In order to support the reliable delivery of cargo during periods of ice formation on the Lakes, a \$82 million contract was let to replace the 1944-vintage USCG Cutter MACKINAW. The Wisconsin shipyard Marinette Marine will build the new ship to the dimensions of 240 feet long and 60 feet wide. The multi-purpose vessel will replace the MACKINAW in 2006, upon the decommissioning of the veteran icebreaking ship.

Construction of a new Soo Lock is coming closer to actuality with three of the eight Great Lakes states committing to their share of the non-Federal funding. The future lock would replace two aging smaller locks, and reduce dependence on the only lock capable of handling the largest 1000-foot vessels.

Other developments include increased security measures for the Seaway and Great Lakes system conducted on all foreign vessels. Measures consist of an increase to 96 hours of notice of arrival prior to westbound entry of the Seaway, risk assessments prior to vessels entering the Seaway, and inspection by boarding teams.

Ballast Water Issue and Legislation

The Michigan State Senate introduced legislation calling for the sterilization of vessel ballast water as a way of eliminating the introduction of Aquatic Nuisance Species (ANS) in regional waters. All Great Lakes' states (Illinois, Indiana, Michigan, Minnesota, New York, Ohio, Pennsylvania, and Wisconsin) and two Canadian provinces (Ontario and Quebec) are working together toward a regional solution.

Canadian and U.S. study committees contend that sterilization is not the only treatment method or process being scrutinized for a solution in managing ANS within the Great Lakes/St. Lawrence System. The final version of the bill, passed into law in August of 2001, does not include the provision to sterilize ballast and supports the on-going regional efforts to find a workable solution to treat ballast water. In addition, the House of Representatives in the State of Wisconsin also introduced Assembly Bill 437 to address the problem of ANS. This bill is patterned on the Michigan legislation.

This issue is also being addressed through Federal legislation. Two bills (H.R. 1680 and S. 1034) attempt to assure that "to the maximum extent practicable," vessels entering the Great Lakes do not spread aquatic nuisance species through the discharge of ballast water. The two bills would also require that ballast water and sediments in ballast compartments be treated with the "most effective and efficient techniques available" to remove or destroy ANS.

The proposed legislation on all levels is complicated by the lack of scientific research and data on the type of ANS, as well as ballast water sediment found in both ocean and domestic vessels. These two different types of vessels vary widely in volume of ballast to be treated and access to the tanks for sampling. At this time, there is no reasonable treatment mechanism for the degree of proposed sterilization.

Maritime Promotion and Outreach

Along with partnership in many forums on maritime commerce and safety, MARAD also participates in the Great Lakes Dredging Team (GLDT). In a partnership of Federal and State agencies, the GLDT continues to meet to ensure dredging of U.S. harbors and channels throughout the Great Lakes, and uphold navigational needs of the commercial waterway users. Contributions and assistance from the Team led to two publications: *Beneficial Uses of Great Lakes Dredged Material: A Report of the Great Lakes Beneficial Use Task Force* and *Waste to Resource: Beneficial Use of Great Lakes Dredged Material*.

MARAD is a member of the Great Lakes Regional Waterways Forum, which was created in 1999, and is composed of 26 Government and private-sector agencies and organizations from both the U.S. and Canada. Working subcommittees consist of Outreach, Advanced Technology for Navigation, Communications, and Ballast Water. Of projects to note, a previous publication of the Team is being converted to a video format, a Great Lakes/Seaway System Directory was released, and efforts took place to harmonize U.S. and Canadian regulations on ballast water exchange.

MARAD updated a "*U.S. Great Lakes Merchant Seaman Employment Fact Sheet*" to serve both U.S. vessel fleets and potential mariners. It now provides a listing of companies conducting direct hiring and unions representing mariners, with direct links to the web sites maintained by those companies and unions. This can be accessed on the MARAD web site, www.marad.dot.gov.

MARAD Fire School instructors took their training knowledge into the region on several occasions. The Upper Great Lakes Captains Association was addressed on small passenger vessel fire fighting procedures. Also, a training specialist con-

ducted lectures and demonstrations for ferryboat companies in the Upper Peninsula of Michigan. Moreover, under the heading of port security and response, a special three-day session with an emphasis on tanker fire fighting strategy was held in Chicago.

